

AGENDA

SFARI

Spring 2022 Investigator Meeting

New York City
Monday - Wednesday, April 11-13

WiFi network: **SimonsGuests**

Password: **simonsnyc**

Monday, April 11

8:00 – 9:00 am	Breakfast
9:00 – 9:10 am	Welcome and introduction David Spergel, Ph.D. (Simons Foundation) Kelsey C. Martin, M.D., Ph.D. (SFARI)

Session 1 Genetic causes of autism and related neurodevelopmental disorders

Live from Ingrid Daubechies Auditorium, 162 Fifth Avenue

Streaming from Gerald D. Fischbach Auditorium, 160 Fifth Avenue

9:10 – 9:25 am	Session introduction Alan Packer, Ph.D. (SFARI)
9:25 – 9:50 am	Michael Talkowski, Ph.D. (Massachusetts General Hospital; Broad Institute of MIT and Harvard) <i>Insights into the allelic architecture of autism spectrum disorder from rare coding variation</i>
9:50 – 10:15 am	Yufeng Shen, Ph.D. (Columbia University) <i>Integrating de novo and inherited variants in over 42,607 autism cases identifies new risk genes with moderate effect</i>
10:15 – 10:40 am	Kavitha Sarma, Ph.D. (The Wistar Institute) <i>Elucidating the consequence of R-loop accumulation in autism spectrum disorders</i>
10:40 – 11:10 am	Coffee break
11:10 – 11:35 am	Elise Robinson, Sc.D. (Harvard T.H. Chan School of Public Health) <i>Statistical and functional convergence of common and rare variant risk for neuropsychiatric disease at chromosomes 16p and 22q</i>
11:35 – 12:00 pm	Beate St Pourcain, Ph.D. (Max Planck Institute for Psycholinguistics) <i>Polygenic pleiotropy within ASD and ADHD genetic architectures: Shared risk alleles with discordant polygenic effects</i>
12:00 – 12:30 pm	Panel discussion Moderator: Daniel Geschwind, M.D., Ph.D. (University of California, Los Angeles)
12:30 – 2:00 pm	Lunch and Bridge to Independence fellows networking lunch

Session 2 Homeostatic plasticity and sleep in neurodevelopmental disorders

Live from Gerald D. Fischbach Auditorium, 160 Fifth Avenue

Streaming from Ingrid Daubechies Auditorium, 162 Fifth Avenue

2:00 pm	Session introduction Brigitta Gundersen, Ph.D. (SFARI)
2:15 – 2:40 pm	Graeme Davis, Ph.D. (University of California, San Francisco) <i>Homeostatic plasticity: A biochemical mechanism of brain resilience relevant to the etiology and treatment of neurodevelopmental and neurological disorders</i>
2:40 – 3:05 pm	Graham Diering, Ph.D. (University of North Carolina at Chapel Hill) <i>Developmental sleep disruption as a risk factor in autism spectrum disorder</i>
3:05 – 3:35 pm	Coffee break
3:35 – 4:00 pm	Shinjae Chung, Ph.D. (University of Pennsylvania) <i>Neural mechanisms underlying sleep disturbances in autism spectrum disorder</i>
4:00 – 4:30 pm	Panel discussion Moderator: Kevin Bender, Ph.D. (University of California, San Francisco)

AGENDA

4:30 – 4:45 pm	Closing remarks
4:45 – 5:15 pm	Cocktail reception and clinical and cognitive science social 2nd floor promenade at 160 Fifth Avenue
5:15 – 5:45 pm	Introduction and highlights from 2021 Human Cognitive and Behavioral Science RFA awardees Gerald D. Fischbach Auditorium, 160 Fifth Avenue
5:45 – 6:15 pm	Cocktail reception and clinical and cognitive science social 2nd floor promenade at 160 Fifth Avenue
6:15 – 8:00 pm	Dinner Black Barn

Tuesday, April 12

8:00 – 9:00 am	Breakfast
----------------	-----------

Session 3 Gene expression, cells and behavior

Live from Ingrid Daubechies Auditorium, 162 Fifth Avenue

Streaming from Gerald D. Fischbach Auditorium, 160 Fifth Avenue

9:00 – 9:15 am	Session introduction Julia Sommer, Ph.D. (SFARI)
9:15 – 9:40 am	John Rubenstein, M.D., Ph.D. (University of California, San Francisco) <i>Sequential functions of ASD risk gene <i>Tbr1</i> in mouse cortical cell fate specification and synapse formation: Phenotypic rescue by augmenting WNT signaling</i>
9:40 – 10:05 am	Beatriz Rico, Ph.D. (Kings College London) <i>Synapse-specific regulation of protein synthesis for cortical wiring</i>
10:05 – 10:35 am	Coffee break
10:35 – 11:00 am	Renata Batista-Brito, Ph.D. (Albert Einstein College of Medicine) <i>Mef2c-mediated developmental dysfunction of parvalbumin-expressing interneurons</i>
11:00 – 11:25 am	Hirofumi Morishita, M.D., Ph.D. (Icahn School of Medicine at Mount Sinai) <i>Role of autism risk genes in frontal-thalamic projections underlying social processing in mice</i>
11:25 am – 12:00 pm	Panel discussion Moderator: Mriganka Sur, Ph.D. (Massachusetts Institute of Technology)
12:00 – 1:20 pm	Lunch and genomics of ASD networking lunch

Session 4 Human research studies

Live from Gerald D. Fischbach Auditorium, 160 Fifth Avenue

Streaming from Ingrid Daubechies Auditorium, 162 Fifth Avenue

1:20 – 1:35 pm	Session introduction Paul Wang, M.D. (Clinical Research Associates)
1:35 – 2:00 pm	Amina Abubakar, Ph.D. (The Kenya Medical Research Institute (KEMRI)-Wellcome Trust Research Programme and Aga Khan University) <i>Challenges and opportunities in carrying out research on neurodevelopmental disorders in Sub-Saharan Africa: Lessons from the Neurodev Study</i>
2:00 – 2:25 pm	Gaspar Taroncher-Oldenburg, Ph.D. (Simons Foundation) <i>Microbiome and other multi-scale associations along the gut-brain axis in autism</i>

AGENDA

2:25 – 2:50 pm	Rachel Kelly, Ph.D. (Harvard Medical School) <i>Integrative metabolomic endotyping of autism spectrum disorders</i>
2:50 – 3:10 pm	Coffee break
3:10 – 3:35 pm	John Murray, Ph.D. (Yale University) <i>Mapping brain-behavior relationships in autism</i>
3:35 – 4:05 pm	Panel discussion Moderator: TBD
4:05 – 4:30 pm	Coffee break
4:30 – 5:30 pm	Keynote panel What's next in ASD research: Perspectives from ASD parent-scientists Live from Gerald D. Fischbach Auditorium, 160 Fifth Avenue Streaming from Ingrid Daubechies Auditorium, 162 Fifth Ave. Panelists: Ted Abel, Ph.D. (University of Iowa) Michael Boland, Ph.D. (Columbia University) Pamela Feliciano, Ph.D. (SPARK) Soo-Kyung Lee, Ph.D. (University at Buffalo) Moderator: Alice Luo Clayton, Ph.D. (SFARI)
5:30 – 5:35 pm	Closing remarks
5:35 – 7:00 pm	Cocktail reception with demo and poster session 2nd floor promenade at 160 Fifth Avenue
7:00 – 8:45 pm	Dinner KYMA

Wednesday, April 13

8:00 – 9:00 am Breakfast

Session 5 Emerging therapeutic opportunities

Live from Ingrid Daubechies Auditorium, 162 Fifth Avenue
Streaming from Gerald D. Fischbach Auditorium, 160 Fifth Avenue

9:00 – 9:15 am	Session introduction John Spiro, Ph.D. (SFARI)
9:15 – 9:40 am	Arkady Khoutorsky, D.V.M., Ph.D. (McGill University) <i>The integrated stress response pathway controls autism-related features a cell-type-specific manner</i>
9:40 – 10:05 am	Allison Bradbury, Ph.D. (Nationwide Children's Hospital; The Ohio State University) <i>Optimization and validation of gene therapy using patient specific in vitro and in vivo models of SLC6A1 related autism disorder</i>
10:05 – 10:35 am	Coffee break
10:35 – 11:00 am	Christopher Ahern, Ph.D. (University of Iowa) <i>Molecular spell-checking with tRNA to correct stop codon-opathies</i>
11:00 – 11:25 am	Richard Huganir, Ph.D. (Johns Hopkins University) <i>Regulation of synaptic plasticity by SynGAP</i>
11:25 – 11:55 am	Panel discussion Moderator: Joseph Gleeson, M.D. (University of California, San Diego)
11:55 am – 12:00 pm	Closing remarks Kelsey C. Martin, M.D., Ph.D. (SFARI)
12:00 – 1:00 pm	Lunch and departures